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Analysis the phytochemicals compound and antibacterial activity of plumbago auriculata

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Abstract
Plants are considered as one of the important sources of biologically active compound in natural product research over the years human health problems have been increasingly and are now becoming lipe threatening conventional medical used to control problems often to expensive and has many side effects plumbago auriculata is a medicinal plant which state us in the field of natural medicine and Ayurveda it's very important in Indian system of medicine.: -1) To extract compounds from plumbago auriculata using various methods 2) To analyse the presence of bioactive compounds in the extract 3) To check the antibacterial activity of the plumbago auriculata against gram positive and Gram Negative bacteria 4) To carry out biogenesis of silver nanoparticles from extract showing antimicrobial activity. Material and method: - The study is carried out in the premises of PVP College of Arts, Science and Commerce, Pravaranagar. A non-experimental research, descriptive survey design with cross sectional approach was used in this study. Non-Probability purposive sampling technique. Result: The results revealed that the phytochemical aqueous extracts leaves showed carbohydrates, alkaloids and glycoside, flower showed positive result for carbohydrates and alkaloids and stem showed positive result for alkaloids. Phytochemical analysis by maceration techniques leave the extract shows positive result for Carbohydrate alkaloids and tannin leaves extract for Petroleum Ether solvent shows positive result for alcohols flower extract shows positive result for extract for methanol solvent shows positive result for carbohydrate.

Keywords: Phytochemical, maceration, soxhlet extraction

Introduction
Plants are considered as one of the important sources of biologically active compound in natural product research over the years human health problems have been increasingly and are now becoming life threatening conventional medical used to control problems often to expensive and has many side effects plumbago auriculata is a medicinal plant which state us in the field of natural medicine and Ayurveda it's very important in Indian system of medicine[1].

Problem Statement
"Analysis the phytochemicals compound and antibacterial activity of plumbago auriculata"

Objective of Study
1. To extract compounds from plumbago auriculata using various methods
2. To analyse the presence of bioactive compounds in the extract
3. To check the antibacterial activity of the plumbago auriculata against gram positive and gram-Negative bacteria
4. To carry out biogenesis of silver nanoparticles from extract showing antimicrobial activity

Research Methodology
Research Approach: Cross-Sectional Approach

Research Design: Descriptive Survey Design.

Population: Plumbago Auriculata Leaves

Setting: The study was conducted on PVP College of Arts, Science and Commerce, Pravaranagar.

Sampling Technique: Non-Probability purposive sampling

Section I: Phytochemical Extraction
Exact of all three sample with three different solvent by maceration technique and hot continuation extraction method.

Phytochemical Analysis for Aqueous Extract
Phytochemical analysis by aqueous extract leaves shows positive result for carbohydrates alkaloids and glycoside, flower shows positive result for Carbohydrate and alcohols, stem shows positive result for alkaloids.

Section II: Maceration Technique
Maceration technique phytochemical analysis, leaves extract in methanol solvent shows positive result for carbohydrates alkaloids and tanning leaves extract for Petroleum Ether solvent shows positive result for alkaloids in flower extract methanol Solvent shows positive result for tannin in stem extract and also and shows positive result for carbohydrates.

Section III: Phytochemical analysis by soxhlet apparatus
Leaves extract in Methanol Solvent shows positive result for carbohydrate Saponin and flavonoid in flower extract methanol solvent shows positive result for Carbohydrate protein and alkaloids in flower extract petroleum Ether shows positive result for alcohols and proteins in stem extract methanol Solomon shows positive result for Al colloids proteins and like glycoside.

Section IV: Antimicrobial Activity

Aqueous extract on Plumbago Auriculata on leaves shows 3mm zone of inhibition against E. coli. Flower shows 2mm inhibition against E. coli stem does not show any extract of inhibition.

Summary

There are different number of bioactive compounds found in plumbago auriculata in aqueous extraction the presence of Carbohydrate alcohols and glycoside in maceration show the presence of Carbohydrates, alkaloids, tannin in hot continuous extraction method shows Carbohydrates Alkaloids, glycoside, saponin and flavonoids. hot container extraction method shows maximum extraction of active phytochemicals and antibacterial activity.

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